

American Society for Testing Materials BULLETIN

I S S U E D



BI MONTHLY

Future Opportunities

THE study of materials, of their production and properties, has speeded up sharply in the past few years and appears to be still accelerating. The latter tendency is reflected in the growing number of contributions in old fields, the number of new fields to which exact quantitative investigation is finding application, and the extent to which new avenues of inquiry are opened up by completed studies. The general picture is that of a field of labor having future opportunities many times greater than those yet realized.

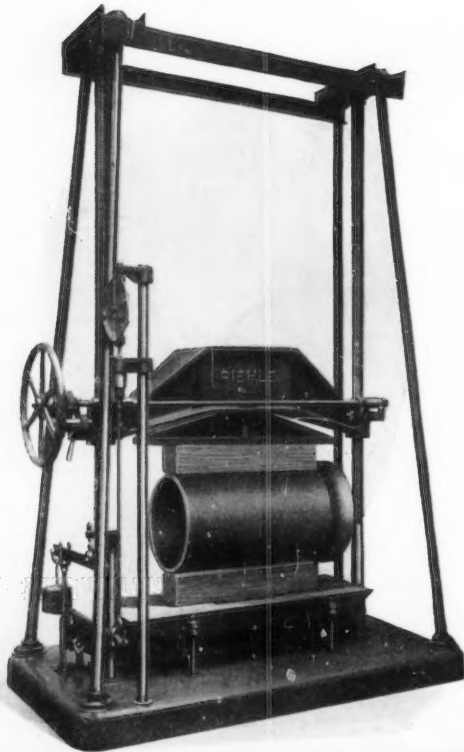
Editorial on Annual Meeting, *Engineering News-Record*,
July 3, 1930

July, 1930

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American Society for Testing Materials



BULLETIN

ENGINEERS' CLUB BUILDING

1315 SPRUCE STREET

PHILADELPHIA, PA.

NUMBER 45

JULY 31, 1930

Thirty-third Annual Meeting

SUPERLATIVES have largely lost their significance because they have become so commonplace. Nevertheless it is necessary to deal in superlatives in describing the recent annual meeting of the Society, for it was by far the largest ever held, not only in attendance but in the amount of business transacted. In attendance the meeting exceeded the previous meeting by over 150, the total registered being 1092. Although the program was of necessity somewhat crowded due to the number of items to be presented, including 54 committee reports and 73 papers, interest was sustained throughout. The reports of the committees, in addition to presenting recommendations on standards, included many reports of investigations that were of extreme interest and value. One report alone, that of Committee C-9 on Concrete and Concrete Aggregates, although offering relatively few recommendations in respect to revisions of standards or the advancement of tentative standards, comprised over 100 pages as printed, made up for the most part of reports of individual investigations or joint investigations carried out by subcommittees or sections thereof. This report, however, is only illustrative of many of the reports on the program.

As to which feature of the meeting was of outstanding interest depends, of course, on the individual's point of view and on his peculiar interest in the program. From a general interest standpoint, the Symposium on Aircraft Materials was unquestionably the feature of the meeting and to this symposium two sessions were devoted. The papers secured through the efforts of the advisory committee in charge of the symposium were of outstanding merit and enlisted the

interest of aircraft manufacturers and producers of materials throughout the country. Discussion of the various problems in the materials field was exceedingly frank and open, questions raised by one manufacturer in respect to a problem encountered being answered by representatives of other manufacturers who had met with the same problems in production and had arrived at satisfactory solutions.

The Symposium on Rosin, although having a somewhat limited appeal, was of considerable interest to those in attend-

ance and discussion was freely entered into in respect to the various phases of the use of rosin in industry, the papers on the program serving to introduce the discussion in respect to the use of rosin in the various fields.

The reports and papers dealing with corrosion again proved of outstanding interest as did also those on fatigue of metals. The field of non-ferrous metals was also well represented. The strongest program that the Society has had in years in the paint field resulted in a most interesting session at which the papers were presented, many of the members entering spir-

itedly into the discussion, particularly in respect to determining the hiding power of paints. Likewise an interesting session resulted through the presentation of a number of papers dealing with rubber. The sessions on cement and concrete were of their usual interest and were probably the largest attended sessions of the meeting.

In all, sixteen sessions were held including six pairs of simultaneous or concurrent sessions. These, together with the many committee meetings held throughout the week, left little time for leisure with the exception of the annual

New Officers



PRESIDENT K. G. MACKENZIE



VICE-PRESIDENT CLOYD M. CHAPMAN

Dance and Smoker on Wednesday evening and the golf and tennis tournaments on Thursday afternoon.

Presidential Address

The President's Address was presented on Wednesday evening following the presentation of the report of the Executive Committee. The President, T. D. Lynch, was introduced by the presiding officer, Past-President H. F. Moore. His address dealt with the significance of the work of the Society and the possibilities that lie before it. He emphasized that the Society is peculiarly constituted to represent industry of every kind because its membership extends to every type of industry. Its committees, by means of which the work of the Society is accomplished, are composed of a balanced membership in a true sense with producer and consumer and those having a general interest with reference to the problems assigned, represented. The men serving on these committees are selected because of their affiliations, their knowledge and their willingness to help by contributing to the work their knowledge and experience.

"It is a privilege," Mr. Lynch said in closing, "to see the unselfish manner in which these committeemen work, and to work with them is a joy. We believe with Elbert Hubbard that 'It is one of the most beautiful compensations of life that no man can sincerely try to help another without helping himself.' Our committee work has proved the truth of this statement. Joint work of this sort helps every member of the group, and while we help others by group work we also help ourselves, our commercial interests and make progress for the human race."

Election of Officers

The report of the tellers appointed to canvass the ballot on election of officers was presented at the Wednesday evening session. The canvass of ballots showed that 1098 legal ballots had been cast and the officers were declared duly elected. The newly-elected President, K. G. Mackenzie, upon being presented to the meeting, expressed deep appreciation of the honor of his election to the presidency. He pointed out that the Society is an association of individuals, either with a common aim or for a common purpose, and that success can be achieved only if every member contributes. He asked the continued cooperation of the membership, especially along the lines of increased membership, use and publicity of the Society's standards and in the activities of the standing committees.

The newly-elected Vice-President, Cloyd M. Chapman, upon being presented to the meeting, thanked the members for the honor bestowed upon him and stated that he realized the office was one of responsibility and that he would do his best to fulfill the requirements and to assist in carrying out whatever tasks were assigned to him.

Edgar Marburg Lecture

The fifth Edgar Marburg Lecture was held on Wednesday afternoon, the lecturer, Dr. C. E. Kenneth Mees, Director of Research and Development of the Eastman Kodak Co., speaking on "Color and Its Measurement." In this he presented a very interesting description of the theory of color analysis and synthesis with screen demonstrations by means of prisms and special apparatus. He discussed the physical nature of color involving a consideration of the nature of light and methods which may be used for measuring it and

for its standardization. Doctor Mees predicted that the measurement of color both analytically by means of the spectrophotometer and synthetically by means of colorimeters will increase and form an important part of the work of laboratories devoted to the testing of materials.

Award of Charles B. Dudley Medal

Following the Edgar Marburg Lecture the fourth award of the Charles B. Dudley Medal was made to Messrs. J. R. Townsend, W. A. Straw and C. H. Davis, joint authors of the paper presented at the 1929 annual meeting on "Physical Properties and Methods of Test for Some Sheet Non-Ferrous Metals." Mr. H. S. Vassar, the chairman of the Committee on Award, introduced the recipients of the medal and the award was made by the President. Mr. Straw acknowledged the receipt of the medal on behalf of the joint authors.

Action on Proposed Standards

Forty-nine committees of the Society presented reports. Most of these recommended actions on standards and tentative standards. As a result of the action of the Society on these recommendations 21 new tentative standards were accepted and 45 existing tentative standards were advanced to standard, 55 existing standards were revised and 5 standards and 2 tentative standards were withdrawn. As a result of the actions taken, the 1930 Book of Standards will now contain 426 standard specifications, methods of test, definitions, etc. In addition, the Society will have 152 tentative standards.

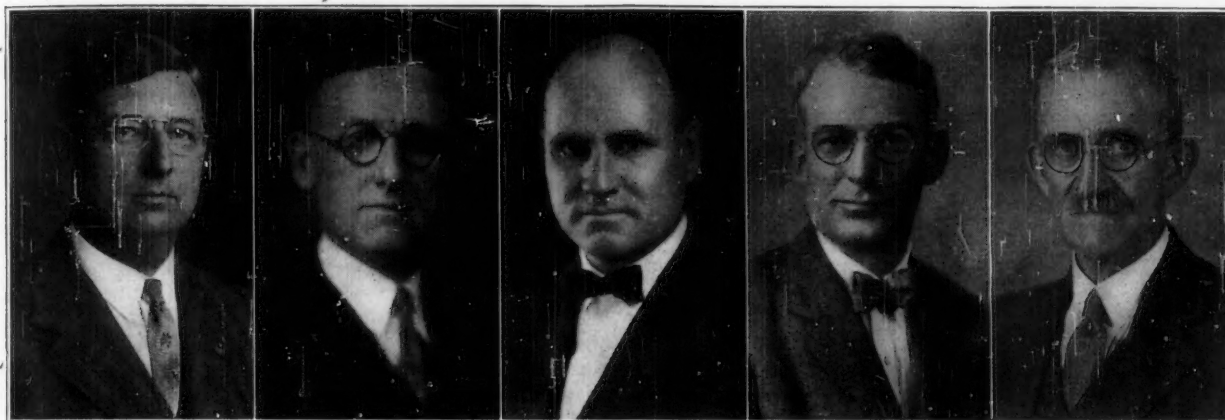
Entertainment Features

More attention was given to the several entertainment features provided for both the ladies and the men than at any previous annual meeting. This year a special ladies committee, under the chairmanship of Mrs. C. L. Warwick, arranged for entertainment of the ladies, which included kitchen tours through the new Haddon Hall, a musical entertainment on Tuesday evening, card parties on Wednesday afternoon and Thursday evening and a trip to the Seaview Golf Club on Thursday afternoon. The annual Dance and Smoker was again an extremely popular feature of the meeting.

The general entertainment was in charge of Prof. T. R. Lawson, who also headed a reception committee consisting of twenty-five members. Mr. G. E. Warren looked after the golf tournament and Mr. F. S. Crane, the tennis tournament. The entries in both tournaments were larger in number than any heretofore, due partly to the fact that the tournaments were held on Thursday rather than on Friday as in former years. There were 58 entries in the golf tournament and 14 in the tennis tournament. The A.S.T.M. Championship Golf Cup was won by Mr. H. V. Churchill, and the A.S.T.M. Championship Tennis Cup, by Mr. R. J. McKay. Other prize winners in the golf and tennis tournaments were J. J. Howard, W. L. Holter, F. M. Hartley, F. H. Morehead, C. N. Conner, W. M. Kinney, L. J. Markwardt, W. C. Bruce, M. A. Swayze, H. A. Sawyer, J. McE. Sanderson and R. L. Moore.

In addition to these features mention should be made of an informal dinner held by Committee D-2 on Petroleum Products and Lubricants with Mr. J. B. Rather the guest of honor, and the informal dinner of Committee D-9 on Electrical Insulating Materials given in honor of its retiring chairman and secretary, H. S. Vassar and T. S. Taylor.

New Members of Executive Committee



H. N. VAN DEUSEN

F. H. JACKSON

ZAY JEFFRIES

G. A. REINHARDT

H. H. QUIMBY

New Officers

The recent election of officers, as announced at the annual meeting, resulted in the unanimous election of Mr. K. G. Mackenzie as President (1930-1931), Mr. Cloyd M. Chapman as Vice-President (1930-1932) and the following as members of the Executive Committee (1930-1932): Messrs. F. H. Jackson, Zay Jeffries, H. H. Quimby, G. A. Reinhardt and H. N. Van Deusen.

President

K. G. Mackenzie, the new President, is Consulting Chemist of the Texas Company. He was graduated from Yale University in 1907 and received his master of science degree from the same university in 1909. From 1907 to 1908 he was assistant in chemistry, the Sheffield School, Yale University; from 1908 to 1910, research chemist, the Barber Asphalt Co., Maurer, N. J.; from 1910 to 1911, chemist with the Nairn Linoleum Co., Newark, N. J.; and since 1911, Consulting Chemist of the Texas Company. For many years he has been an active member and officer of the Society's Committee D-2 on Petroleum Products and Lubricants.

Vice-President

Cloyd M. Chapman, the newly-elected Vice-President, is Consulting Engineer, New York City. He took the mechanical engineering course in Sibley College, Cornell University. He entered the Navy as Engineer Officer (Ensign) during the Spanish American War, after which he entered the employ of Thomas A. Edison, serving as assistant in his laboratory at East Orange, N. J., and also in mining exploration and development in Canada, New Mexico and Australia.

In 1905 he entered the employ of Westinghouse, Church, Kerr and Co. as construction engineer and later became engineer of tests in charge of laboratory. Since 1920 he has practiced as Consulting Engineer in New York City.

Members of Executive Committee

F. H. Jackson, Senior Engineer of Tests, U. S. Bureau of Public Roads, Washington, D. C., studied chemical engineering at Ohio State University. In 1905 he was appointed assistant in the road materials laboratory of the U. S. Office of Public Roads. In 1915 he was appointed assistant engineer of tests, Bureau of Public Roads; in 1924 engineer of tests and since 1928 has been Senior Engineer of Tests.

Zay Jeffries is Consulting Metallurgist, Aluminum Company of America. He was graduated in mining engineering from the South Dakota School of Mines in 1910, and in 1914 received the degree of Met.E. In 1918 he received the degree of Doctor of Science from Harvard University. In 1911 he accepted the position of instructor in metallurgy at the Case School of Applied Science and in 1916 he was appointed assistant professor of metallurgy. Since 1917 he has devoted most of his time to research work for the Aluminum Company of America, the Incandescent Lamp Department of the General Electric Co. and the National Tube Co.

H. H. Quimby is Consulting Engineer, Philadelphia, Pa. He was first connected with the Phoenix Iron Works and then with Clarke Reeves & Co., later becoming assistant engineer with the Phoenix Bridge Co. Next he became division engineer in charge of design and construction of bridges, City of Philadelphia, later serving as chief engineer first with the Phoenix Iron Works, next with the John G. Brown, industrial buildings, and then of the Department of City Transit, City of Philadelphia. Since then he has practiced as Consulting Engineer in Philadelphia.

G. A. Reinhardt is Director of Metallurgy and Research of the Youngstown Sheet and Tube Co., Youngstown, Ohio. He was graduated in 1905 from the Case School of Applied Science. He was chief chemist from 1906 to 1907 of the Salem Iron Co., Leetonia, Ohio, of the Cleveland Furnace Co. from 1907 to 1909, and of Crowell & Murray, Cleveland, Ohio, from 1909 to 1911. From 1911 to 1912 he was a graduate student at Harvard University, serving as assistant to Dr. Albert Sauveur from 1912 to 1913, being graduated in 1913 as a metallurgical engineer. From 1913 to 1929 he served as metallurgical engineer, and since 1929 as Director of Metallurgy and Research of the Youngstown Sheet and Tube Co.

H. N. Van Deusen is Materials Engineer, Bell Telephone Laboratories, New York City. He was graduated from Purdue University in 1907, at which time he entered the Bell System with the Chicago Company. Two years later he was transferred to the engineering organization which is now the Bell Telephone Laboratories. In 1912 he was transferred to New York City where his work became the investigation of protective devices, studies of competitive apparatus, and of analyses of proposed new pieces of apparatus. Mr. Van Deusen is in charge of a group organized to specialize in materials problems.

AMERICAN SOCIETY FOR TESTING MATERIALS

BULLETIN

Issued Bi-Monthly

Engineers' Club Building, 1315 Spruce St., Philadelphia, Pa.

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Number 45

July 31, 1930

Greater Accomplishments

THE Charter states that our Society was formed for the promotion of knowledge of the materials of engineering and the standardization of specifications and the methods of testing. Our accomplishments, since the incorporation of the Society in 1902, are most gratifying. Fifty standing committees have prepared a total of 578 standards, of which 52 have been approved by the American Standards Association as American Standard or as American Tentative Standard. The Society's standards comprise approximately 3000 pages.

While the knowledge of the materials of engineering is, of course, essential in the preparation of our standards, it is particularly gratifying to note the increased activities of our standing committees along the line of research, as applied to these materials. Special commendation should be given to Committee C-9 on Concrete and Concrete Aggregates for its very excellent report to the Society in June. That our standing committees may, during the year, far exceed our past accomplishments is the hope of the officers of the Society.

It is not given to all of us, however, the privilege to participate actively in this splendid work; but those of us who are not so privileged have an equal opportunity to further the work of our Society. Two means may be emphasized:

First, by original contributions in the form of papers for our annual meeting. These papers are not only becoming a more important part of our program each year, but they are securing increasingly greater recognition from the world at large. It is not too early to give serious consideration to desirable subjects for discussion at the annual meeting of the Society next June.

Second, by extending the use of the Society's standards. While this may also be accomplished in a number of ways, I desire to emphasize particularly:

(a) The use of these standards by ourselves. I have heard often that particular industries are "sold" on our

Society, which means that they in the sale of their products urge on their customers the use of the Society's standards. Are we as often "sold" on the use of these standards, as applied to the products we buy?

(b) The importance of telling others of the Society, its work, its accomplishments, and its standards. We all have numerous contacts through which a word about our Society may not only give it greater recognition, but may also give it new members. In this connection I bespeak of you all a hearty response to the requests you will receive during the coming year from the Committee on Membership.

While these random remarks may appear to have been addressed to those not engaged in the work of the standing committees, it behooves us all to do our utmost for the Society. Your officers and Executive Committee will do their part, but without your support, their efforts will be largely in vain.


Amendment to By-laws Referred to Ballot

At the recent annual meeting an amendment of the By-laws recommended by the Executive Committee affecting Article VII, Section 1, whereby the dues of student members will be decreased from \$3 to \$1.50, was approved for reference to letter ballot. The letter ballot on this proposed amendment is a part of the general letter ballot on adoption of standards enclosed with this BULLETIN, to be canvassed September 2, 1930.

Under the lowered dues the student member will receive a copy of the "A.S.T.M. Standards for Students" in place of the complete Book of A.S.T.M. Standards as at present. Each student member will also be supplied with the List of Standards and will be extended the privilege of obtaining copies of either part of the Book of Standards at the price (at present \$2) at which members obtain the second part; also of obtaining copies of separate standards at cost price. Other privileges at present offered to the student members will be continued, namely, to receive the Year Book and BULLETIN, preprints of all reports and papers upon request and the opportunity of securing the annual *Proceedings* and other publications at the special prices to members.

Reprints of Marburg Lecture and Other Papers

A number of items on the program for the 1930 annual meeting were not preprinted in advance of the meeting nor distributed at the meeting. Of these the Edgar Marburg Lecture by C. E. Kenneth Mees on "Color and Its Measurement," is now being put in type and will be distributed within the next few weeks to all members who requested copies in advance of the meeting. Similar distribution will be made of the report of the Joint Committee on Effect of Temperature on the Properties of Metals, the report of the Research Committee on Yield Point and the report of the Research Committee on Fatigue of Metals.

A limited supply of some of the papers not preprinted for the meeting is being made available. Members especially interested in certain papers may secure copies so long as the supply lasts upon application to the Secretary-Treasurer.

Materials and Industrial Economics

Under this heading, referring to the recent annual meeting of the Society, the *Engineering News-Record* comments editorially in its July 3 issue on the growing importance of materials problems in technological activities, stating that "more advance is taking place in the production and use of materials, and in the precision of knowledge concerning them, than in what may more narrowly be termed engineering method. The rate of advance in materials is at present superior to that in applied engineering knowledge."

"The study of materials, of their production and properties, has speeded up sharply in the past few years and appears to be still accelerating. The latter tendency is reflected in the growing number of contributions in old fields, the number of new fields to which exact quantitative investigation is finding application, and the extent to which new avenues of inquiry are opened up by completed studies. The general picture is that of a field of labor having future opportunities many times greater than those yet realized. . . . Materials study is making its way into fields which in the past were closed to it, and it is growing in intensity of cultivation as well as in range; new qualities are recognized, methods of measurement become finer, and laboratory results are better coordinated to service needs."

"Study of materials is certain to continue its growth and embrace a still wider service. . . . Whether a material be as old as bronze, masonry or iron or as new as synthetic plastics and rubber, it can assure itself of lasting position against competition only through continued research."

Committee on 1930 Marburg Lecture

The Executive Committee has appointed the committee to select the Edgar Marburg lecturer for 1930. Under the rules governing the Lecture this committee consists of a member of the Executive Committee, a member of Committee E-9 on Correlation of Research and a member of Committee E-6 on Papers and Publications. The personnel is as follows: F. E. Richart, Research Associate Professor of Theoretical and Applied Mechanics, Engineering Experiment Station, University of Illinois, Urbana, Ill., appointed from Committee E-6; H. C. Mougey, Assistant Technical Director and Chief Chemist, General Motors Corp., Detroit, Mich., appointed from Committee E-9; and T. D. Lynch, Consulting Metallurgical Engineer, Westinghouse Electric and Manufacturing Co., East Pittsburgh, Pa., appointed from the Executive Committee. Mr. Lynch will serve as chairman.

Committee on Dudley Medal and Award

In accordance with the requirements of the Rules Governing the Award of the Dudley Medal the Executive Committee has appointed the following Committee on Award:

J. H. Gibboney, Chief Chemist, Norfolk & Western Railway Co., Roanoke, Va., Chairman.
H. W. Gillett, Director, Battelle Memorial Inst., Columbus, Ohio.
F. H. Jackson, Senior Engineer of Tests, U. S. Bureau of Public Roads, Washington, D. C.

This committee will review the eligible technical papers presented at the annual meeting of the Society last June and will select that paper of outstanding merit constituting an original contribution on research in materials that in its opinion deserves the award of the medal. The author or authors of the paper so selected will receive the medal at the annual meeting next year.

New Standardization Projects

At a meeting to be held on August 12 Committee E-10 on Standards will not only review proposed new specifications submitted by standing committees for publication as tentative but will also review the status of the standardization work of the Society in general, including suggestions for new projects that should be undertaken. The standardization work of the A.S.T.M. has been growing by leaps and bounds during the past few years and various suggestions have come to it that it should undertake work in fields not yet covered.

While standards have been developed to cover the obvious needs in engineering materials, no doubt there are as many projects still to be undertaken in order to meet the demands for additional standardization. Committee E-10 would welcome suggestions from the membership of the Society in respect to projects where there seems to be need for standardization. It would be of assistance if such suggestions were accompanied with a complete statement of the present status in these fields and the extent of the demand for standard specifications or methods of test and the extent to which standards in these fields will be used if developed. Address all communications to the Secretary-Treasurer or to Prof. T. R. Lawson, the chairman of the committee.

Appointment to Committee E-6 on Papers

The terms of three members of Committee E-6 on Papers and Publications expired with the recent annual meeting, namely, those of Prof. A. N. Johnson, Mr. C. S. Reeve and Mr. Jerome Strauss. Professor Johnson and Mr. Reeve accepted reappointment for a further term of three years. Mr. Strauss felt that he was unable to accept similar reappointment and Mr. C. L. Hippensteel, Engineer, Bell Telephone Laboratories, New York City, has been appointed to succeed him.

The committee is already at work on the development of the program for the annual meeting of the Society next year in Chicago. Two symposiums are definitely planned, namely, a Symposium on Effect of Temperature on the Properties of Metals, to be held under the joint auspices of the Society and the American Society of Mechanical Engineers, a continuation of the discussion of this subject held at a meeting of these two societies in 1924, and a Symposium on Weathering Characteristics of Masonry Materials, arranged under the auspices of the Society's Coordinating Committee on Weathering Characteristics. Other important papers in the fields covered by the Society are in prospect.

Appointment to Committee E-9 on Research

Prof. H. F. Moore, Professor of Engineering Materials, University of Illinois, Urbana, Ill., has been reappointed a member of Committee E-9 on Correlation of Research for the term of five years. Professor Moore has served as chairman of the committee since its organization. His knowledge and experience in research will be of inestimable service to the committee.

Announcement is made of the following appointment:

Mr. Rudolph P. Miller, Consulting Engineer, New York City, who is chairman of Committee C-5 on Fire Tests of Materials and Construction, has been appointed as the Society's representative on the Advisory Committee on Fireproof and Fire-Resisting Materials, State of New York.

Matters Referred to Letter Ballot

By action of the annual meeting an amendment to the By-laws, revisions of 55 existing standards and the advancement to standard of 45 tentative standards were referred to letter ballot of the membership of the Society for adoption. The section of the By-laws and the standards and tentative standards affected are given below. Detailed information concerning all matters referred to letter ballot is given in the preprints of committee reports issued to members in advance of the meeting and in the Summary of the Proceedings.

AMENDMENTS TO BY-LAWS

Article VII. Dues: Revision of Section 1.

REVISIONS OF EXISTING STANDARDS

Standard Specifications for:

- Open-Hearth Carbon-Steel Rails (A 1-27), recommended by Committee A-1.
- Billet-Steel Concrete Reinforcement Bars (A 15-14), recommended by Committee A-1.
- Carbon-Steel and Alloy-Steel Forgings (A 18-28), recommended by Committee A-1.
- Welded and Seamless Steel Pipe (A 53-27), recommended by Committee A-1.
- Steel Plates of Structural Quality for Forge Welding (A 78-27), recommended by Committee A-1.
- Lap-Welded and Seamless Steel and Lap-Welded Iron Boiler Tubes (A 83-27), recommended by Committees A-1 and A-2.
- Steel Plates of Flange Quality for Forge Welding (A 89-27), recommended by Committee A-1.
- Commercial Quality Hot-Rolled Bar Steels (A 107-27), recommended by Committee A-1.
- Commercial Cold-Finished Bar Steels and Cold-Finished Shafting (A 108-27), recommended by Committee A-1.
- Refined Wrought-Iron Bars (A 41-18), recommended by Committee A-2.
- Wrought-Iron Plates (A 42-18), recommended by Committee A-2.
- Welded Wrought-Iron Pipe (A 72-27), recommended by Committee A-2.
- Wrought-Iron Rolled or Forged Blooms and Forgings for Locomotives and Cars (A 73-24), recommended by Committee A-2.
- Staybolt, Engine-Bolt and Extra-Refined Wrought-Iron Bars (A 84-27), recommended by Committee A-2.
- Hollow Rolled Staybolt Iron (A 86-27), recommended by Committee A-2.
- Malleable Castings (A 47-27), recommended by Committee A-7.
- Bronze Trolley Wire (B 9-29), recommended by Committee B-1.
- Round and Grooved Hard-Drawn Copper Trolley Wire (B 47-27), recommended by Committee B-1.
- Specifications and Tests for Portland Cement (C 9-26), recommended by Committee C-1.
- Building Brick (Made from Clay or Shale) (C 62-29), recommended by Committee C-3.
- Specifications and Tests for Hollow Burned-Clay Load-Bearing Wall Tile (C 34-27), recommended by Committee C-10.
- Specifications and Tests for Hollow Burned-Clay Floor Tile (C 57-27), recommended by Committee C-10.
- Calcined Gypsum (C 23-22), recommended by Committee C-11.
- Gypsum Plasters (C 28-27), recommended by Committee C-11.
- Gypsum Plastering Sand (C 35-25), recommended by Committee C-11.
- Gypsum Plaster Board (C 37-25), recommended by Committee C-11.
- Gypsum Molding Plaster (C 59-29), recommended by Committee C-11.
- Gypsum Pottery Plaster (C 60-29), recommended by Committee C-11.
- Lampblack (D 209-26), recommended by Committee D-1.
- Bone Black (D 210-26), recommended by Committee D-1.
- Structural Wood Joist, Planks, Beams, Stringers and Posts (D 245-27), recommended by Committee D-7.
- Tolerances and Test Methods for Tire Fabrics Other than Cord Fabrics (D 122-27), recommended by Committee D-13.
- Tolerances and Test Methods for Cord Tire Fabrics (D 179-27), recommended by Committee D-13.

Standard Methods of:

- Determining Weight of Coating on Zinc-Coated Articles (A 90-24), recommended by Committee A-5.
- Testing Gypsum and Gypsum Products (C 26-27), recommended by Committee C-11.
- Routine Analysis of White Pigments (D 34-27), recommended by Committee D-1.
- Distillation of Gasoline, Naphtha, Kerosine, and Similar Petroleum Products (D 86-27), recommended by Committee D-2.

- Test for Viscosity of Petroleum Products and Lubricants (D 88-26), recommended by Committee D-2.
- Test for Water in Petroleum Products and Other Bituminous Materials (D 95-28), recommended by Committee D-2.
- Test for Water and Sediment in Petroleum Products by Means of Centrifuge (D 96-28), recommended by Committee D-2.
- Test for Cloud and Pour Points of Petroleum Products (D 97-28), recommended by Committee D-2.
- Test for Burning Quality of Kerosine Oils (D 187-27), recommended by Committee D-2.
- Test for Carbon Residue of Petroleum Products (Conradson Carbon Residue) (D 189-28), recommended by Committee D-2.
- Test for Distillation of Natural Gas Gasoline (D 216-27), recommended by Committee D-2.
- Test for Burning Quality of Long-Time Burning Oil for Railway Use (D 219-27), recommended by Committee D-2.
- Test for Burning Quality of Mineral Seal Oil (D 239-27), recommended by Committee D-2.
- Test for Loss on Heating of Oil and Asphaltic Compounds (D 6-27), recommended by Committee D-4.
- Laboratory Sampling and Analysis of Coal and Coke (D 271-29), recommended by Committee D-5.
- Sampling and Analysis of Creosote Oil (D 38-27), recommended by Committee D-7.
- Test for Coke Residue of Creosote Oil (D 168-27), recommended by Committee D-7.
- Test for Distillation of Creosote Oil (D 246-28), recommended by Committee D-7.
- Testing Molded Insulating Materials (D 48-29), recommended by Committee D-9.
- Testing Insulating Oils (D 117-27), recommended by Committee D-9.
- Rules Governing the Preparation of Micrographs of Metals and Alloys (E 2-27), recommended by Committee E-4.

Standard Definitions of Terms:

- Relating to Wrought-Iron (A 81-27), recommended by Committee A-2.

TENTATIVE STANDARDS TO BE ADOPTED AS STANDARD

Tentative Specifications for:

- Steel Tie Plates (A 67-26 T), revised as recommended by Committee A-1.
- Iron and Steel Chain (A 56-28 T), revised as recommended by Committees A-1 and A-2.
- Gray-Iron Castings for Valves, Flanges and Pipe Fittings (A 126-29 T), recommended by Committee A-3.
- Zinc-Coated Iron or Steel Telephone and Telegraph Line Wire (A 111-27 T), revised as recommended by Committee A-5.
- Zinc-Coated (Galvanized) Iron or Steel Tie Wires (A 112-27 T), revised as recommended by Committee A-5.
- Zinc-Coated (Galvanized) Wire Fencing (A 116-27 T), revised as recommended by Committee A-5.
- Zinc-Coated Chain-Link Fence Fabric Galvanized After Weaving (A 117-27 T), revised as recommended by Committee A-5.
- Zinc-Coated (Galvanized) Barb Wire (A 121-28 T), revised as recommended by Committee A-5.
- Zinc-Coated (Galvanized) Steel Wire Strand (A 122-28 T), revised as recommended by Committee A-5.
- Zinc (Hot-Galvanized) Coatings on Structural Steel Shapes, Plates and Their Products (A 123-29 T), revised as recommended by the Sectional Committee on Zinc Coating of Iron and Steel.
- Seamless Copper Tubes (B 75-28 T), recommended by Committee B-5.
- Paving Brick (C 7-29 T), recommended by Committee C-3.
- Sand-Lime Building Brick (C 73-28 T), revised as recommended by Committee C-3.
- Hollow Burned-Clay Fireproofing, Partition and Furring Tile (C 56-28 T), revised as recommended by Committee C-10.
- Keene's Cement (C 61-29 T), revised as recommended by Committee C-11.
- Calcined Gypsum for Use in the Preparation of Dental Plasters (C 72-29 T), revised as recommended by Committee C-11.
- High-Carbon Tar for Surface Treatment, Cold Application (D 104-27 T), revised as recommended by Committee D-4.
- Low-Carbon Tar for Surface Treatment, Cold Application (D 105-27 T), revised as recommended by Committee D-4.
- High-Carbon Tar for Surface Treatment, Hot Application (D 108-27 T), recommended by Committee D-4.
- Low-Carbon Tar for Surface Treatment, Hot Application (D 109-27 T), recommended by Committee D-4.
- High-Carbon Tar Cement (D 110-27 T), recommended by Committee D-4.
- Low-Carbon Tar Cement (D 111-27 T), recommended by Committee D-4.
- Coal-Tar Pitch for Stone Block Filler (D 112-27 T), recommended by Committee D-4.
- Gravel for Bituminous Concrete Base (D 309-29 T), recommended by Committee D-4.
- Acid-Resisting Asphalt Mastic (D 223-25 T), recommended by Committee D-8.

Tentative Methods of:

- Sampling Rolled and Forged Steel Products for Check Analysis (A 33-28 T), recommended by Committee A-1.
 Testing Zinc-Coated (Galvanized) Iron and Steel Wire and Wire Products (A 110-27 T), recommended by Committee A-5.
 Test for Change of Resistance with Temperature of Electrical Heating Materials (B 70-27 T), recommended by Committee B-4.
 Test for Approximate Apparent Specific Gravity of Fine Aggregate (C 68-28 T), revised as recommended by Committee C-9.
 Test for Approximate Percentage of Voids in Fine Aggregate (C 69-28 T), revised as recommended by Committee C-9.
 Test for Field Determination of Surface Moisture in Fine Aggregate (C 70-28 T), revised as recommended by Committee C-9.
 Analysis for Color of Paints in Terms of Physical Units (D 307-29 T), revised as recommended by Committee D-1.
 Test for Detection of Free Sulfur and Corrosive Sulfur Compounds in Gasoline (D 130-27 T), recommended by Committee D-2.
 Test for Melting Point of Petrolatum (D 127-28 T), revised as recommended by Committee D-2.
 Test for the Determination of Autogenous Ignition Temperatures (D 286-28 T), revised as recommended by Committee D-2.
 Distillation of Bituminous Materials Suitable for Road Treatment (D 20-28 T), revised as recommended by Committee D-4.
 Test for Fineness of Powdered Coal (D 197-26 T), recommended by Committee D-5.
 Test for Sieve Analysis of Crushed Bituminous Coal (D 311-29 T), recommended by Committee D-5.
 Testing Electrical Porcelain (D 116-29 T), recommended by Committee D-9.
 Test for Toluol Insoluble Matter in Rosin (D 269-27 T), revised as recommended by Committee D-17.

Tentative Definitions of Terms Relating to:

- Heat Treatment Operations (Especially as Related to Ferrous Alloys) (A 119-28 T), revised as recommended by Committee A-4.
 Coal and Coke (D 121-27 T), revised as recommended by Committee D-5.
 Timber (D 9-29 T), recommended by Committee D-7.
 Textile Materials (D 123-28 T), revised as recommended by Committee D-13.
 Methods of Testing (E 6-25 T), recommended by Committee E-1.

New Tentative Standards

The twenty-one new tentative standards, consisting of fourteen specifications, six methods of test and one list of definitions accepted for publication, are listed below, together with the serial designations that have been assigned to them:

Metals:

- Specifications for Austenitic Manganese-Steel Castings (A 128-30 T).
 Specifications for Open-Hearth Iron Plates of Flange Quality (A 129-30 T).
 Method of Test for Thermoelectric Power (B 77-30 T).
 Specifications for Aluminum-Alloy (Duralumin) Sheet (B 78-30 T).
 Specifications for Aluminum-Manganese Alloy Sheet (B 79-30 T).
 Specifications for Magnesium-Base Alloy Castings (B 80-30 T).

Concrete:

- Specifications for Reinforced-Concrete Pipe (C 75-30 T).
 Specifications for Reinforced-Concrete Culvert Pipe (C 76-30 T).
 Laboratory Method of Making Flexure Tests of Concrete Using a Simple Beam with Center Loading (C 78-30 T).

Gypsum:

- Specifications for Gypsum Sheathing Board (C 79-30 T).

Paint Diluents and Putty:

- Specifications for Glazier's Putty (D 317-30 T).
 Specifications for Amyl Acetate (Synthetic) (D 318-30 T).
 Specifications for Amyl Alcohol (Synthetic) (D 319-30 T).
 Specifications for Butyl Propionate (90 to 93 per cent Grade) (D 320-30 T).
 Specifications for Ethyl Lactate (Synthetic) (D 321-30 T).

Petroleum Products:

- Method of Test for Dilution of Crankcase Oil (D 322-30 T).
 Method of Test for Determination of Vapor Pressure of Natural Gasoline (Reid Method) (D 323-30 T).

Timber:

- Specifications for Timber Piles (D 25-30 T).
 Method of Test for Specific Gravity, 38°/15.5° C., of Creosote Fractions (D 38-30 T).
 Definitions of Terms Relating to Timber Preservatives (D 324-30 T).

Insulating Materials:

- Method of Test for Comparing the Thermal Conductivity of Solid Electrical Insulating Materials (D 325-30 T).

Chicago Museum of Science and Industry

The members of the Society are no doubt familiar with the establishment of the Museum of Science and Industry in Chicago. The Society has been appealed to for assistance in connection with some of the exhibits to be developed along the lines indicated below. Many of our members would no doubt wish to be of assistance in establishing these exhibits and may be in a position to contribute equipment or suggestions along the lines desired:

1. Machines and instruments for static, dynamic and duty tests of the properties of materials. Many members of the Society may have apparatus which has outlived its usefulness but which might properly find a place in an educational institution such as the Museum will be. The Museum would like to show tests of tensile strength of materials, impact tests, hardness tests, fatigue tests, etc.
2. Principles of testing. The Museum would wish to explain how these machines work, how the data are taken and what the figures mean when secured. Members of the Society who have had experience in exhibiting machines of this character in engineering and industrial displays may be able to be of assistance in this matter.
3. Standard specimens for exhibition, along with similar ones which have undergone tests. Wherever possible the latter should be chosen on account of their bearing upon definite engineering projects, well-known to the public.
4. Social and economic effects. Information for showing how data secured in testing laboratories have proved crucial in determining whether or not an engineering project was feasible. Statistics to show how human life has been altered by successful engineering developments based upon data from testing laboratories.

Any members wishing to cooperate with the Museum, kindly address Mr. Waldemar Kaempfert, Director, 300 W. Adams St., Chicago, Ill.

Committee on 1931 Annual Meeting

As previously announced, the 1931 annual meeting will be held in Chicago at The Stevens over the dates June 22 to 26. A Committee on Annual Meeting to make arrangements has been appointed consisting of the following members of the Executive Committee: G. E. Warren, Chairman, F. H. Jackson, H. F. Moore, and Zay Jeffries.

Preprints of Reports and Papers for Annual Meeting

With the April issue of the BULLETIN was enclosed a request blank which the members might use in requesting copies of the reports and papers preprinted for the annual meeting of the Society. The preprints requested, in so far as they were printed, were sent out in three installments, the first installment being placed in the mails on May 29, the second installment on June 16, and the third installment during the annual meeting of the Society. Any member who failed to receive a preprint request blank or copies of the preprints desired is requested to advise the Secretary-Treasurer. Some request blanks were received without signature or mailing address and obviously the members who returned these blanks were disappointed in not receiving the preprints requested.

Discussion Will Still Be Received

Written discussion of the papers and reports presented at the recent annual meeting will be received by the Committee on Papers and Publications until September 2. Discussions received later may or may not be included in the Proceedings, although special consideration will be given to discussions of papers not preprinted for the annual meeting but distributed in reprint form after the meeting.

Franklin Memorial Museum

The museum to be erected in Philadelphia as a memorial to Benjamin Franklin, under the auspices of the Franklin Institute and the Benjamin Franklin Memorial, Inc., referred to in the July, 1929, issue of the A.S.T.M. BULLETIN, is taking definite form. Plans call for a three-unit structure, first, a memorial chamber, which will house a statue of Benjamin Franklin approximating in size the great statue of Abraham Lincoln in the Lincoln Memorial at Washington; second, new quarters for the activities of the Franklin Institute; and third, a great museum which will contain exhibits along the lines of the interesting Deutsches Museum at Munich. The plan of making the intricate apparatus of science understandable to the layman is the underlying object of this museum. The exhibits, for the most part, will not carry the usual "do not touch" sign, but an invitation will be extended to see the exhibit work—in many cases arranged so the individual may operate it for himself.

Of especial interest to the American Society for Testing Materials will be a section assigned to engineering materials and testing, in the planning of which the Society is cooperating through a committee under the chairmanship of Mr. Samuel T. Wagner, as announced a year ago. One of the interests of the Society is in establishing a record of and noting developments in the science of materials and the determination of their properties. The Society has an opportunity to cooperate in the development in this museum of exhibits second to none.

The project is being financed in part through the endowment of the Franklin Institute and in part through popular subscription. A campaign to raise the required funds was successfully carried out recently over a period of ten days, largely through the efforts of Mr. Cyrus H. K. Curtis of the Curtis Publishing Co. The city has joined in the project by leasing for the purpose a plot of ground for the period of 99 years, at a rental of \$1 per year. The ground on which the memorial and museum will be built is a plot three and one-half acres in size on the Parkway, within 5 blocks of the city center. It will be of outstanding interest to the city, to the nation, and to the world at large. The American Society for Testing Materials will be directly interested because of its interest in materials and testing methods.

Appreciating that the membership of the Society would wish to be affiliated with this undertaking, the Executive Committee has indicated its interest in the campaign for funds and a letter will be addressed to the individual members later in the summer soliciting subscriptions in nominal amounts.

Wanted Immediately—50 Copies of Part I, 1927 Book of Standards

As previously mentioned in Circulars to Members and in the BULLETIN, the edition of Part I, Metals, of the 1927 Book of A.S.T.M. Standards is entirely exhausted. To meet the requirements until the 1930 edition becomes available in October we should have at least 50 copies of Part I of the 1927 edition. Many members can, no doubt, spare their copies, and if they are willing to do so, the Society will gladly purchase Part I. Members willing to dispose of their copies should communicate immediately with the Secretary-Treasurer.

Symposium on Automotive Materials Published

The papers presented at the Symposium on Developments in Automotive Materials held in connection with the Detroit Regional Meeting in March are being assembled, together with discussion, and will shortly be published as a reprint pamphlet. The papers are twelve in number, as follows:

Present-Day Methods in Production and Utilization of Automotive Cast Iron, by A. L. Roeggehold.
Sheet Steel for Automobiles, by W. H. Graves.
Corrosion-Resisting and Heat-Resisting Steels for Automobiles, by Charles M. Johnson.
Advances in Die-Cast Metals for Automotive Use, by Charles Pack.
Developments in Light Metals and Alloys for Automotive Use, by Zay Jeffries.
Automobile Bearing Metals, by Clair Upthegrove.
The Significance of Various Tests for Motor Fuels, by R. E. Wilson.
The Significant Properties of Automotive Lubricants, by H. C. Mougey.
Evolution in Automobile Finishes, by M. J. Callahan.
Phenol Resinoids and the Automobile, by L. V. Redman.
Advances in Rubber for Automotive Use, by Walter C. Keys.
Recent Progress in Tests for Automotive Materials, by H. F. Moore.

The pamphlet, which will comprise approximately 192 pages, will be distributed without charge to members of the Society. Those desiring to secure copies, kindly return promptly the enclosed request card. The charge to non-members, and to members for additional copies, will be one dollar per copy.

Meeting of Southern California Members

A meeting of the members of the Society in the Southern California District was held at the Engineers' Club, Los Angeles, on June 26, under the auspices of the Southern California District Committee, of which Prof. F. W. Hinrichs, Jr., is chairman. About 40 members of the Society and guests were in attendance. The work of the Society was discussed, together with ways whereby the members in the Southern California District might cooperate in bringing to the attention of the appropriate Society officers subjects which the members would wish to have developed under the Society auspices. In this connection it was mentioned that a proposal of a new standing committee on mortars for unit masonry had been referred to the Executive Committee of the Society, that a standing committee on this subject had been authorized and was in process of organization. The importance of a number of other subjects of interest to the California members was mentioned and these subjects will receive the consideration of the Executive Committee.

The committee is working closely with the district committees of San Francisco and Seattle and, in submitting opinions on any subjects referred to it, it is planned to be able to submit joint opinions of all three of the western committees. The meeting was so successful that it is planned to hold similar meetings, at least twice during the year.

Exhibit at Los Angeles Exposition

Through the cooperation of the Southern California District Committee, an exhibit was arranged in connection with the Oil Equipment and Engineering Exposition held in Los Angeles in March. The exhibit consisted of the display of the Society's publications, together with booklets of information and copies of the A.S.T.M. BULLETIN. This display attracted considerable interest and contributed in disseminating information concerning the Society among those who attended the exposition.

Sixth Annual Road Congress

The Sixth Congress of the Permanent International Association of Road Congresses will be held in Washington, D. C., October 6 to 11. Preparations for the Congress are rapidly moving ahead and already 43 countries have informed the State Department that they will send official delegates.

Six questions of importance to members of the Society are on the agenda. These will be presented by seven reporters, all of them well-known in highway engineering circles as follows:

1. (a) Results obtained by use of cement, Frank T. Sheets, Chief Highway Engineer, Illinois;
(b) Results obtained by use of brick and other artificial paving, P. J. Freeman, Chief Engineer, Bureau of Tests and Specifications, Department of Public Works, Allegheny County, Pa.;
2. Recent methods adopted for use of tar, bitumen and asphalt in road construction, Roy W. Crum, Director, Highway Research Board, Washington, D. C.;
3. Construction of roads in new countries and colonies, E. W. James, Chief, Division of Highway Economics, Bureau of Public Roads;
4. Ways and means of financing highways, Col. A. B. Barber, Director, National Conference on Street and Highway Safety;
5. Highway transport, correlation and coordination with other forms of communication, Dr. Henry R. Trumbower, Professor of Economics, University of Wisconsin;
6. Traffic regulation in large cities and suburbs, and parking and garaging of vehicles, Dr. Miller McClintock, Director, Albert Russel Erskine Bureau for Street Traffic Research, Harvard University.

Membership in the Congress is held by governments, scientific bodies and individuals. Membership is either permanent or temporary, but all members are entitled to participate in the Congress, and to receive the 69 reports covering the subjects to be discussed, as well as the Proceedings. The Society is cooperating in the Congress and has taken out two temporary memberships. Two official delegates have been designated, Mr. Prévost Hubbard, Chemical Engineer, The Asphalt Institute, New York City, secretary of the Society's Committee D-4 on Road and Paving Materials, and Mr. P. J. Freeman, Chief Engineer, Bureau of Tests and Specifications, Department of Public Works, Allegheny County, Pa., the newly elected chairman of Committee D-4.

Exhibit at A.F.A. Convention

The Executive Committee accepted the invitation of the American Foundrymen's Association to arrange for an exhibit in connection with the annual convention of the American Foundrymen's Association at Cleveland, May 12 to 16. The booth occupied by the Society was appropriately located in the educational section. The exhibit covered the general activities of the Society and specifically the standardization and research work relating to the foundry industries. The regular publications of the Society were on display as well as special publications. In view of the position of the booth every visitor to the exhibition was obliged to pass it and considerable interest was displayed by the visitors throughout the entire week. Pamphlets containing information about the Society was freely taken and a considerable number of inquiries were received. It is felt that the publicity afforded the work of the Society has been well worth the effort taken.

The exhibit was manned by the Assistant Treasurer assisted at intervals by members of the Society located in Cleveland. The Secretary-Treasurer was also in attendance on several days.

Classification of Coal

The work of the Sectional Committee on Classification of Coal, which has been under way for several years under the sponsorship of the American Society for Testing Materials, gives promise of proving immensely valuable to coal consumers. Special reference is made to the program of a subcommittee, known as the Technical Committee on Scientific Classification of Coal. A vast volume of data has already been accumulated by that committee and it has been decided to raise money and employ a full-time investigator in plotting data and fitting coals into the systems for classification.

At the last meeting of the Sectional Committee plans were mapped out along that line, and in July the secretary of the committee, C. B. Huntress, who is Executive Secretary of the National Coal Association, undertook the task of securing the fund necessary to carry the program over a two-year period. This can be done for \$20,000, and it is believed the money will be at hand in the early fall, whereupon an investigator will at once be employed.

Forthcoming Society Publications

Symposium on Developments in Automotive Materials.—A compilation is being prepared of the twelve papers, together with discussion, presented in connection with the Detroit Regional Meeting in March. The pamphlet will comprise approximately 192 pages and should be available late in August.

Year Book.—The 1930 Year Book, about 328 pages, containing the Charter and By-laws, the list of members, geographical distribution of members, personnel of standing committees and list of standards and tentative standards, is now in course of preparation. This volume will be ready for distribution to all members about September 1.

1930 Book of A.S.T.M. Standards.—The 1930 issue of the Book of A.S.T.M. Standards will again appear in two parts, Part I containing the standards of the Society relating to metals and Part II the standards relating to non-metallic materials. The two parts will comprise approximately 2300 pages and will contain all of the standards of the Society (426) in their latest revised form. The volumes should be ready for distribution about October 15.

Book of A.S.T.M. Tentative Standards.—The special volume containing all of the tentative standards of the Society (152) in their latest revised form is now in preparation. Although the current Proceedings contain the new and revised tentative standards, many members find it a convenience to have a compilation of all tentative standards bound in one cover. Each new member as he qualifies is furnished with a copy of this publication. The 1930 book will be available about October 15.

Combined Index of Standards.—A combined index of all Standards and Tentative Standards of the Society will again be issued complete with references to the publications in which the Standards appear. This index should be available early in November and will be distributed to all members and others on request.

Proceedings.—The publication of the Proceedings of the recent annual meeting containing committee reports, new and revised standards, technical papers and discussions, will be taken in hand as promptly as possible. It is expected that distribution to members in good standing will be completed about December 15. The size of Parts I and II of the Proceedings will aggregate approximately 2300 pages.

Presentation of Data

The Technical Committee on Presentation of Data, functioning under Committee E-1 on Methods of Testing, held a very interesting meeting in connection with the recent annual meeting of the Society. The chairman, Dr. W. A. Shewhart, opened the meeting with a general discussion of the place of modern statistics in scientific methods, stressing the fundamental importance of the law of large numbers in the so-called "exact sciences."

Mr. H. F. Dodge, of the Bell Telephone Laboratories, discussed the subject of how large a sample should be taken, pointing out that this depends first of all on the accuracy or risk that will answer the purpose in hand. When once the numerical magnitude of the chance factor has been determined upon, probability theory will serve as a competent and reliable aid in deciding what size of sample should be used. Discussing a particular case of a type of sampling inspection, he showed that a number of sample sizes would give satisfactory results but that a certain sample size and procedure gives the most economical sampling for any given case.

Mr. Anson Hayes, of the American Rolling Mill Co. illustrated the use of statistical methods on corrosion. Dr. A. E. R. Westman discussed the subject of how a representative sample should be taken, referring specifically to difficulties encountered in procedures for sampling fire brick.

A Program Committee has been organized, under the chairmanship of Anson Hayes, to arrange for offers of appropriate papers to be presented at a further meeting of the committee to be held in connection with the 1931 annual meeting of the Society.

Joint Committee on Reinforced Concrete

The Joint Committee on Concrete and Reinforced Concrete functioning under the joint auspices of the American Concrete Institute, The American Society of Civil Engineers, The American Railway Association, The Portland Cement Association and this Society held a meeting for reorganization purposes in connection with the recent annual meeting of the Society. Prof. W. A. Slater, Research Professor of Engineering Materials, Lehigh University, Bethlehem, Pa., was elected chairman, and Mr. F. R. McMillan, Director of Research, Portland Cement Association, Chicago, Ill., was elected secretary.

The reorganized committee is charged with the revision of the Standard Specifications for Concrete and Reinforced Concrete published in 1924.

Committee B-6 on Die-Cast Metals and Alloys

On the recommendation of the Non-Ferrous Metals Advisory Committee a new standing committee has been organized, designated Committee B-6 on Die-Cast Metals and Alloys, which will carry on the work formerly under the jurisdiction of Subcommittee XV of Committee B-2 on Non-Ferrous Metals and Alloys. The personnel is now being completed, based upon the personnel of the former Subcommittee XV. Announcement of the complete personnel will be given in the October issue of the A.S.T.M. BULLETIN. Mr. H. A. Anderson, Metallurgical Engineer, Western Electric Co., Chicago, has been elected chairman and Mr. P. V. Faragher, Metallurgist, Aluminum Company of America, Pittsburgh, Pa., has been elected secretary.

The committee has quite an ambitious program before it, including not only further work on the compilation of test data on various alloys used in die castings but also the development of specifications.

New Committee Officers

Elections of officers required in the even years by the Regulations Governing Standing Committees has resulted in new officers in a number of the committees as noted below:

COMMITTEE A-3 ON CAST IRON.

Vice-Chairman: A. L. Boegehold, Metallurgist, Research Dept., General Motors Corp., Detroit, Mich.
Secretary: W. H. Rother, Metallurgist, Buffalo Foundry and Machine Co., Buffalo, N. Y.

COMMITTEE A-10 ON IRON-CHROMIUM, IRON-CHROMIUM-NICKEL AND RELATED ALLOYS.

Secretary: H. D. Newell, Chief Metallurgist, The Babcock and Wilcox Tube Co., Beaver Falls, Pa.

COMMITTEE B-6 ON DIE-CAST METALS AND ALLOYS.

Chairman: H. A. Anderson, Metallurgical Development Engineer, Western Electric Co., Chicago, Ill.

Vice-Chairman: D. L. Colwell, Metallurgist, Stewart Die Casting Corp., Chicago, Ill.

Secretary: P. V. Faragher, Metallurgist, Aluminum Co. of America, Pittsburgh, Pa.

COMMITTEE B-7 ON LIGHT METALS AND ALLOYS, CAST AND WROUGHT.

Vice-Chairman: V. Skillman, Metallurgist, Bohn Aluminum and Brass Corp., Detroit, Mich.

COMMITTEE C-2 ON REINFORCED CONCRETE.

Chairman: S. C. Hollister, Consulting Engineer, Swarthmore, Pa.

Secretary: W. A. Slater, Research Professor of Engineering Materials and Director, Fritz Engineering Lab., Lehigh University, Bethlehem, Pa.

COMMITTEE C-3 ON BRICK.

Chairman: H. T. Shelley, Secretary and Manager, Eastern Clay Products Assn., Philadelphia, Pa.

Vice-Chairman: F. E. Richart, Research Associate Professor of Theoretical and Applied Mechanics, Engineering Experiment Station, University of Illinois, Urbana, Ill.

COMMITTEE D-1 ON PRESERVATIVE COATINGS FOR STRUCTURAL MATERIALS.

Vice-Chairman: C. S. Neal, Manager of Production, Paint and Varnish Dept., Sherwin-Williams Co., Ann Arbor, Mich.

Secretary: P. H. Cathcart, Chemist, National Lead Co., Brooklyn, N. Y.

COMMITTEE D-2 ON PETROLEUM PRODUCTS AND LUBRICANTS.

Vice-Chairman: T. G. Delbridge, Process Supervisor, The Atlantic Refining Co., Philadelphia, Pa.

COMMITTEE D-4 ON ROAD AND PAVING MATERIALS.

Chairman: P. J. Freeman, Chief Engineer, Bureau of Tests and Specifications, Department of Public Works, Allegheny County, Pittsburgh, Pa.

Vice-Chairman: H. L. Howe, Director of Design and Construction, City of Rochester, Department of Public Works, Bureau of Design and Construction, Rochester, N. Y.

Vice-Chairman: A. T. Goldbeck, Director, Bureau of Engineering, National Crushed Stone Assn., Washington, D. C.

Vice-Chairman: C. S. Reeve, Chief Chemist, Development Dept., The Barrett Co., Leonia, N. J.

COMMITTEE D-9 ON ELECTRICAL INSULATING MATERIALS.

Chairman: H. L. Curtis, Principal Physicist, U. S. Bureau of Standards, Washington, D. C.

Secretary: J. A. Scott, General Electric Co., Schenectady, N. Y.

COMMITTEE D-11 ON RUBBER PRODUCTS.

Chairman: W. B. Wiegand, Binney & Smith Co., New York City.

COMMITTEE D-13 ON TEXTILE MATERIALS.

Chairman: H. J. Ball, Professor of Textile Engineering, Lowell Textile Inst., Lowell, Mass.

Vice-Chairman: R. H. Adams, Manager, Testing Lab., Cason J. Callaway Mills, Inc., La Grange, Ga.

Secretary: W. H. Whitcomb, Henry L. Scott Co., Providence, R. I.

COMMITTEE E-4 ON METALLOGRAPHY.

Chairman: C. H. Davis, Assistant Metallurgist, American Brass Co., Waterbury, Conn.

Secretary: O. E. Harder, Assistant Director, Battelle Memorial Inst., Columbus, Ohio.

The Society extends its congratulations and best wishes to these newly elected officers and looks confidently to their interest in and support of the activities of the standing committees which have elected them. At the same time the Society wishes to express its appreciation of the services of those officers who are retiring with this annual meeting.

New Members to July 31, 1930

The following 117 members were elected from May 1 to July 31, 1930, making the total membership, exclusive of student members, 4417:

Company Members (28)

- American Can Co., F. F. Fitzgerald, Director of Research, Research Dept., Maywood, Ill.
 American Hardware Corp., E. G. Anderson, Chemist, 10 Franklin Square, New Britain, Conn.
 American Railroad Co. of Porto Rico, E. S. Jimenez, General Manager, San Juan, Porto Rico.
 American Salpa Corp., E. H. Grafton, In Charge of Chemical Development, Spotswood, N. J.
 Anthracite Inst., E. W. Parker, Secretary, 225 S. 15th St., Philadelphia, Pa.
 Castalia Portland Cement Co., C. R. Rinehart, Chief Chemist, Castalia, Ohio.
 Colphalt Co. of Ohio, The, Harry Steuer, President, Western Reserve Building, Cleveland, Ohio.
 Crosley Radio Corp., The, R. H. Langley, Director of Engineering, Arlington St., Cincinnati, Ohio.
 Davidson Brick Co., E. A. Tapper, Vice-President, 4701 Floral Drive, Los Angeles, Calif.
 Erwin Cotton Mills Co., The, K. P. Lewis, Secretary and Treasurer, West Durham Station, Durham, N. C.
 General Electric Co., J. R. Brossman, Chief of Laboratory, 6901 Elmwood Ave., Philadelphia, Pa.
 Greene Brothers, C. F. Greene, Wichita Falls, Tex.
 Gypsum Assn., H. J. Schweim, Chief Engineer, 211 W. Wacker Drive, Chicago, Ill.
 Kelsey-Hayes Wheel Corp., O. E. Goudy, Metallurgist, 6100 McGraw Ave., Detroit, Mich.
 Kentucky Rock Asphalt Co., E. A. Carleton, Chief Chemist, Marion E. Taylor Bldg., Louisville, Ky.
 Mueller Brass Co., C. A. Hill, Engineer, Port Huron, Mich.
 Oyster Shell Products Corp., Inc., E. E. Eakins, 1 Broadway, New York City.
 Pawtucket Manufacturing Co., William Povey, Superintendent, 327 Pine St., Pawtucket, R. I.
 Porcelain Enamel and Manufacturing Co., H. G. Wolfram, Director of Research, Eastern and Pemco Ave., Baltimore, Md.
 RCA Victor Co. (Mass.), C. N. Reifsteck, Resident Engineer, 76 Atherton St., Jamaica Plain, Mass.
 Roxalin Flexible Lacquer Co., Inc., Leo Roon, Technical Director, 103 Seventh Ave., Long Island City, N. Y.
 Southern Cement Co., C. W. Streit, Jr., Sales Manager, 1411 American Trust Building, Birmingham, Ala.
 Sowers Manufacturing Co., C. M. DeForest, Assistant Manager, 1300 Niagara St., Buffalo, N. Y.
 Spicer Manufacturing Corp., S. L. Widrig, Metallurgist, 4100 Bennett Road, Toledo, Ohio.
 Thomas & Hochwalt Labs., Inc., C. A. Thomas, President, Box 32, Station B, Dayton, Ohio.
 Trotter and Co., E. T., C. F. Devine, Technical Director, 594 Johnson Ave., Brooklyn, N. Y.
 Trundle Engineering Co., The, R. C. Brett, Research Engineer, 118 St. Clair Ave., Cleveland, Ohio.
 Yale & Towne Manufacturing Co., The, M. C. Maxwell, Chief Engineer of Manufacture, Stamford, Conn.

Individual and Other Members (76)

- Albert, E. J., Thwing Instrument Co., 3339 Lancaster Ave., Philadelphia, Pa.
 Alden, R. C., Assistant Director of Research, Phillips Petroleum Co., Bartlesville, Okla.
 Alvarez, J. M., Detailer, Gibbs & Hill, Inc., Pennsylvania Station, New York City. For mail: 87 Hamilton Place, New York City.
 Baker, H. J., Engineer of Steel Insp., The Port of New York Authority, 80 Eighth Ave., New York City.
 Barbour, R. Y., Structural Engr., Lord & Burnham Co., Irvington, N. Y. For mail: 127 Harwood Ave., Philipse Manor, N. Y.
 Baxley, C. H., Engineer, Refined Oil Dept., Vacuum Oil Co., 61 Broadway, New York City. For mail: 11 Burnham Place, Radburn, Fair Lawn, N. J.
 Beerstecher, Ernest, Chief Chemist, White Star Refining Co., Detroit, Mich. For mail: 5539 Lenox Ave., Detroit, Mich.
 Brierley, N. H., Chief Mechanical Engr., Havana Terminal R. R. Co., Apartado 450, Havana, Cuba.
 Browne, H. R., Chemical Director, Michigan Alkali Co., Wyandotte, Mich.
 Burgwin, S. L., Electrical Engr., Westinghouse Research Labs., Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.
 Chandler, Henry, Assistant to President, Vanadium Corp. of America, 120 Broadway, New York City.
 Coleman, R. L., Director, Dept. of Metallurgy, Research Division, The J. M. Ney Co., 71 Elm St., Hartford, Conn.
 Colquette, R. T., Jr., Chief Engr., Root Refining Co., El Dorado, Ark.
 Connelly, M. E., Secretary, South Park Commissioners, 57th St. and Cottage Grove Ave., Chicago, Ill.
 Conner, C. N., Engineer-Executive, Am. Road Builders Assn., 914-A National Press Bldg., Washington, D. C.
 Corbett, W. E., Chief Engr., Core Joint Concrete Pipe Co., Irvington, N. J. For mail: 95 Beekman Ave., N. Tarrytown, N. Y.
 Crane, C. C., Chief Chemist, Keystone Steel and Wire Co., Peoria, Ill.
 Curtis, R. M., Engineer, The New Jersey Zinc Co., 160 Front St., New York City.
 Draffin, J. O., Assistant Professor of Theoretical and Applied Mechanics, 218 Materials Testing Lab., University of Illinois, Urbana, Ill.
 Ebberts, A. R., Technical Director, Colprovia Roads, Inc., New York City. For mail: 20 W. 22d St., New York City.
 Emerson, H. B., Manager of Service Dept., Lehigh Portland Cement Co., Room 831, 111 W. Washington St., Chicago, Ill.
 Fax, G. E., Chief Engr., The John Inglis Co., Ltd., 14 Strachan Ave., Toronto, Ont., Canada.
 Fish, L. D., Research Engr., Gilmore Oil Co., 2423 E. 28th St., Los Angeles, Calif.
 Flannery, William, Mechanical Engr., Department of Water Supply, 2535 Municipal Bldg., New York City.
 Fudge, Thomas, Chief Chemist, International Nickel Co., Bayonne, N. J. For mail: 976 Salem Road, Townley, Elizabeth, N. J.
 Fulton, A. M., Northern Malleable Iron Co., St. Paul, Minn.
 Garnsey, A. H., City Engr., Municipal Council of Sydney, Town Hall, Sydney, N. S. W., Australia.
 Gay, C. M., Professor of Architectural Constr., School of Architecture, University of Pennsylvania, Philadelphia, Pa.
 Gothard, N. J., Assistant Chief Chemist, Sinclair Refining Co., East Chicago, Ind.
 Grisi, A. P., Ingeniero Inspector, Ministerio de Obras Publicas, La Plata, Argentina.
 Gwaltney, P. A., General Superintendent, Marlboro Cotton Mills, McColl, S. C.
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 Kelsey, J. R., Chief Assistant Engr. to G. B. Woodruff, New York City. For mail: Box 534, Sound Beach, Calif.
 Kent, N. J., Ceramic Engr., Johns-Manville Corp., New York City. For mail: 21 Marshall St., Caldwell, N. J.
 Kinney, C. L., Jr., Director, Physical Lab., Illinois Steel Co., 3426 E. 89th St., South Chicago, Ill.
 Laird, A. W., Metallurgical Engr., Western Elec. Co., Hawthorne Station, Chicago, Ill. For mail: 4847 West End Ave., Chicago, Ill.
 Larson, C. M., Supervising Engr., Sinclair Refining Co., 45 Nassau St., New York City.
 Lawson, David, Consulting Engr., 793 Broadway, New York City.
 Litehiser, R. R., Chief Engr., Bureau of Tests, Ohio State Highway Dept., Columbus, Ohio.
 McKesson, C. L., Director of Eng. and Research, Am. Bitumuls Co., 200 Bush St., San Francisco, Calif.
 Meyer, B. F., Field Engr., Medusa Portland Cement Co., Cleveland, Ohio. For mail: 14 W. Meyer St., Pittsburgh, (10), Pa.
 Miedendorp, Henry, Jr., Consulting Textile Engr., 16 Lee Ave., Glen Rock, N. J.
 Möller, J. A. L., Vice-President, Standard Products Corp., 152 W. 22d St., New York City.
 Moore, R. J., Development Manager, Varnish Resin Division, Bakelite Corp., 230 Grove St., Bloomfield, N. J.
 Morgan, C. E., Illinois State Highway Engr., Box 81, Springfield, Ill.
 Nardiello, M. V., Director, Toledo Testing Lab., 1501 Cherry St., Toledo, Ohio.
 Ott, J. E., Sales Engr., Acme Steel Co., 2834 Archer Ave., Chicago, Ill.
 Peoria Public Library, E. W. Browning, Librarian, Box 766, Peoria, Ill.
 Reichmann, Albert, Division Engr., Am. Bridge Co., Room 1334, 208 S. La Salle St., Chicago, Ill.
 Reid, E. W., Manager, Sales Development Lab., Carbide and Carbon Chem. Corp., New York City. For mail: Mellon Inst., Pittsburgh, Pa.
 Reid, L. S., Chief Engr., Magnetic Analysis Corp., Long Island City, N. Y. For mail: 25 Appleton Place, Upper Montclair, N. J.
 Richmond, City of, Department of Public Works, R. K. Compton, Director of Public Works, 302 City Hall, Richmond, Va.
 Rogers, C. E., Chief Insp., Alemito Corp., Chicago, Ill. For mail: 1061 Rosemont Ave., Chicago, Ill.
 Rose, T. L., Architect, 196 W. Water St., Milwaukee, Wis.
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 Sexton, J. E., Supervisor, Architectural and Eng. Division, S. S. Kresge Co., 2727 Second Boulevard, Detroit, Mich.
 Spalding, S. C., Assistant Metallurgist, Am. Brass Co., Waterbury, Conn.

Spindler, W. A., Metallurgist, Detroit Alloy Steel Co., 6403 Wight St., Detroit, Mich.
 Stern, Marc, Manager, Die-Cast Division, AC Spark Plug Co., 418 W. 3d St., Flint, Mich.
 Strevig, W. E., Materials Engr., R. C. A. Radiotron Co., 415 S. Fifth St., Harrison, N. J.
 Taylor, G. R., Chief Chemist, McColl-Frontenac Oil Co., Ltd., 2540 Notre Dame St., East, Montreal, P. Q., Canada.
 Thomas, H. R., Special Research Associate Professor of Eng. Materials, 217 Materials Testing Lab., University of Illinois, Urbana, Ill.
 Thomson, H. F., Vice-President, General Material Co., 605 Buder Bldg., St. Louis, Mo.
 Wagner, C. R., Chief Chemist, Pure Oil Co., 35 E. Wacker Drive, Chicago, Ill.
 Watson, A. G., Chief Mech. Engr., South African Railways and Harbours, Pretoria, South Africa.
 Westbrook, L. R., Assistant Director, Research Lab., Grasselli Chem. Co., Guardian Bldg., Cleveland, Ohio.
 Whitaker, Alfred, Director of Research, Gramophone Co., Ltd., Hayes, Middlesex, England.
 Wilk, Benjamin, General Manager, Standard Building Products Co., 14250 Cloverdale, Detroit, Mich.
 Williams, C. G., Technical Secretary, Research Assn. of British Motor Mfrs., 15 Bolton Road, Chiswick, London, W. 4, England.
 Woolf, D. O., Associate Materials Engr., U. S. Bureau of Public Roads, Washington, D. C.

Junior Members (13)

Brassell, A. L., Textile Engr., United States Testing Co., Inc., New York City. For mail: 38 E. Hill St., Bloomfield, N. J.
 Broecker, C. A., Junior Engr., Indiana State Highway Commission, 1214 N. New Jersey St., Indianapolis, Ind.
 Cosden, Stanley, Refinery Superintendent, Cosden Oil Co., Ft. Worth, Tex. For mail: Cosden Oil Co., Big Spring, Tex.
 de Montmorency, W. H., Chemical Engr., Galt Testing Lab., 93 Wellington St., Galt, Ont., Canada.
 French, Alan, Chemical Assistant, Shell Marketing Labs. London, England. For mail: 37 Elborough St., Southfields, S. W. 18, London, England.
 Herklotz, E. A., Instructor, Rensselaer Polytechnic Inst., Troy, N. Y. For mail: 101 E. 17th St., Paterson, N. J.
 Hlavka, H. J., Chemist, Smith Oil and Refining Co., 1102 Kilburn Ave., Rockford, Ill.
 Knox, R. F., Civil Engr., Dutchess County Highway Dept., 59 Ferris Lane, Poughkeepsie, N. Y.
 Moore, R. L., Testing Engr., Aluminum Co. of America, New Kensington, Pa.
 Rhodes, E. K., Hydraulics Research, 49 White St., Clark Mills, N. Y.
 Saravis, Joseph, Civil Engr., Gibbs & Hill, Inc., Pennsylvania Station, New York City.
 Schnoll, Nathan, Engr., Polymet Mfg. Corp., New York City. For mail: 852 Manida St., New York City.
 Smith, C. M., Structural Draftsman, 215 W. 23d St., New York City.

Necrology

We announce with regret the death of eight members and representatives:

ALLERTON S. CUSHMAN, Consulting Metallurgist, 250 Park Ave., New York City. Member since 1904.
 CARROLL O. HOLMES, Vice-President, United States Steel Products Co., 30 Church St., New York City. Member since 1928.
 GEORGE W. JONES, Manager of Sales, Pittsburgh Steel Co., Box 72, Pittsburgh, Pa. Member since 1925.
 W. B. NEWBERRY, Assistant Manager, Medusa Portland Cement Co., 1002 Engineers Bldg., Cleveland, Ohio.
 E. B. SMITH, Chemical Engineer, Box 356, Jacksonville, Fla. Member since 1923.
 ELMER A. SPERRY, President, Sperry Development Co., Inc., Manhattan Bridge Plaza, Brooklyn, N. Y. Member since 1917.
 LOUIS P. WEBERT, Metallurgical Engineer, American Brass Co., Waterbury, Conn. Member since 1913.
 EDMOND AUNGER WHITE, Manager, Electrolytic Refining and Smelting Co. of Australia, Ltd., Port Kembla, N. S. W., Australia.

Student Membership

The Student Membership on July 31, 1930, was 247, distributed as follows:

Rensselaer Polytechnic Inst.	178
Cooper Union	23
Cornell University	9
University of Michigan	8
Detroit Institute of Technology	6
Georgia School of Technology	5
Massachusetts Institute of Technology	3
University of California	3
University of Nebraska	2
University of Wisconsin	2
Brown University	1
Colorado School of Mines	1
Columbia University	1
Temple University	1
University of Alabama	1
University of Chicago	1
University of Minnesota	1
Washington University	1

Personals

E. E. EAKINS, Vice-Chairman of Committee C-7, is now connected with the Oyster Shell Products Corp.

C. A. DAYMUDE succeeds John M. Bischoff as the representative of the Department of Buildings and Safety Engineering, City of Detroit, and also represents the Department on Committees C-10 and D-18.

O. E. HARDER has left the School of Mines and Metallurgy, University of Minnesota, to become Assistant Director of the Battelle Memorial Institute, Columbus, Ohio.

S. R. IVES has succeeded H. W. Rinearson as General Manager of the Armco Culvert Manufacturers Association.

R. F. GELLER, recently Director of Research, The Abrasive Co., has returned to the U. S. Bureau of Standards with which he was formerly connected.

L. H. FRY, for many years with the Standard Steel Works Co., has recently become associated with the Edgewater Steel Co. as Railway Engineer.

E. H. GRAFTON is now Manager of the Chemical Development Division of the American Salpa Corp., Spotswood, N. J.

W. H. BASSETT, JR., is now Technical Superintendent of the Anaconda Wire and Cable Co., Hastings-on-Hudson, N. Y.

L. C. CONRADI, formerly Chairman of Committee D-11, is now Metallurgist, Lycoming Manufacturing Co., South Williamsport, Pa.

M. L. HARTMANN is now Vice-President of the Dicalite Co., Los Angeles.

E. E. THUM, Secretary of Committee B-2, has resigned as Associate Editor of the *Iron Age* to become Editor of the new journal, *Metal Progress*, to be published by the American Society for Steel Treating.

L. I. SHAW succeeds G. S. RUTHERFORD as Chairman of the Standing Committee on Relations with the A.S.T.M. of the Western Electric Co.

J. T. MACKENZIE, Chief Chemist of the American Cast Iron Pipe Co., a member of Committee A-3 and representative on Committee D-5 of the American Foundrymen's Association, has received the honorary degree of Doctor of Science from the University of the South.

A. V. DE FOREST, formerly research engineer for the American Chain Co., has been appointed consulting engineer for the company. He will be associated also with the newly organized Welding Engineering and Research Co., New York City.

R. B. YOUNG, Testing Engineer, Hydro-Electric Power Commission of Ontario, has been elected vice-president of the newly organized National Ready-Mixed Concrete Association.

PROFESSIONAL CARDS

PROFESSIONAL CARDS will be accepted for inclusion on this page from Consulting Engineers, Metallurgists, Chemists, Testing Engineers and Testing Laboratories.



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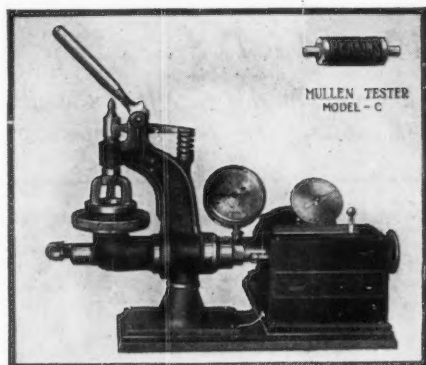
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Due to the amount of material to be included in this issue it was found necessary to increase the news section from 10 to 12 pages, which accounts for the corresponding increase in the space devoted to advertising. It is probable that the next issue of the Bulletin, to be published about September 30, will similarly be enlarged, in which case additional space for advertising will again be made available.

For rates and other information address all communications to the headquarters of the Society.

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An Advertising Section in the Index

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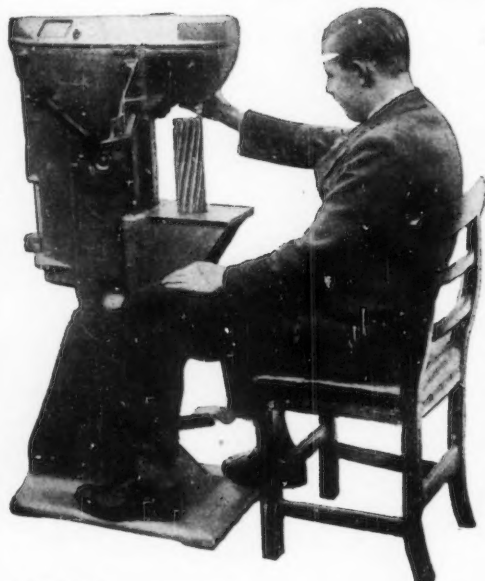
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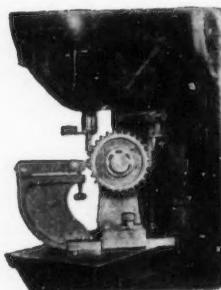
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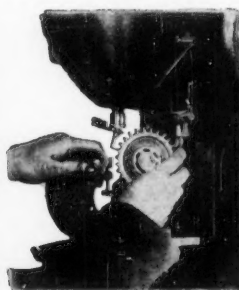


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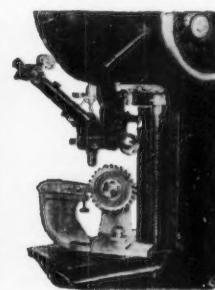
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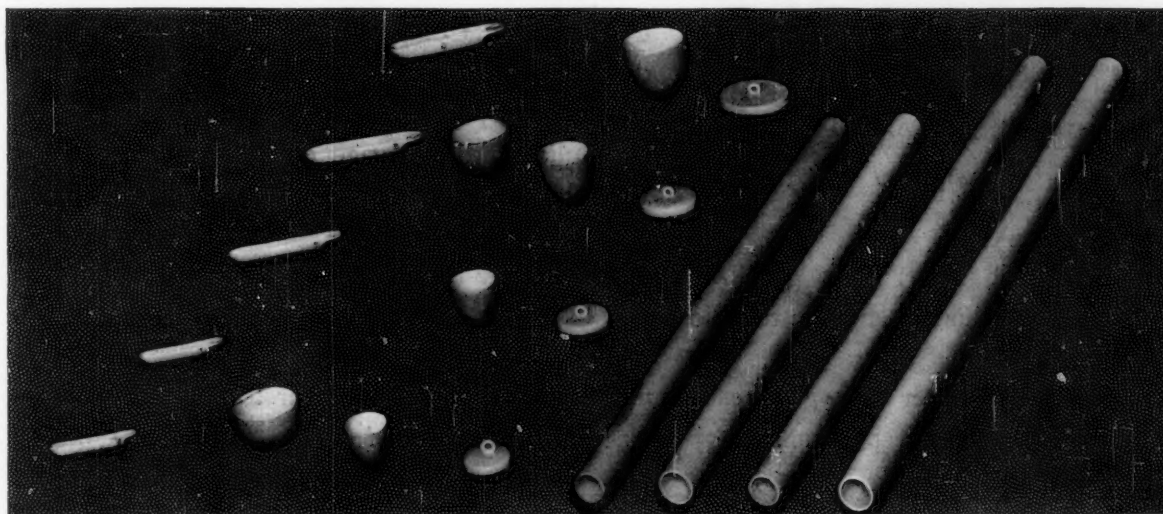
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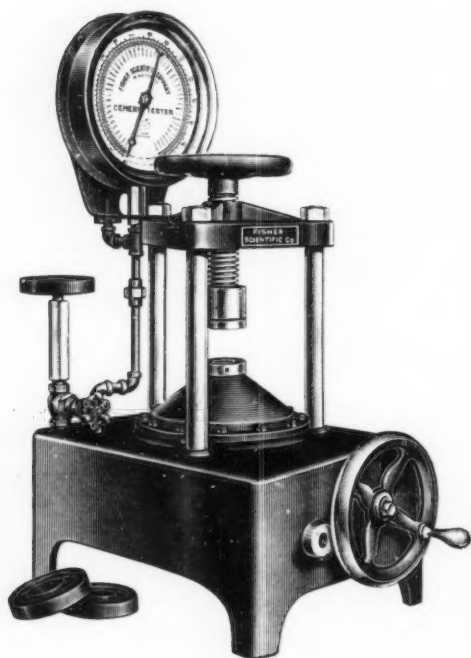
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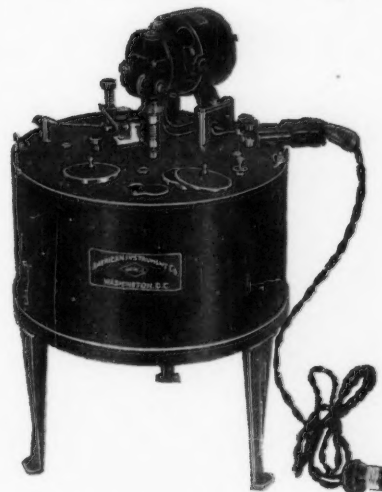
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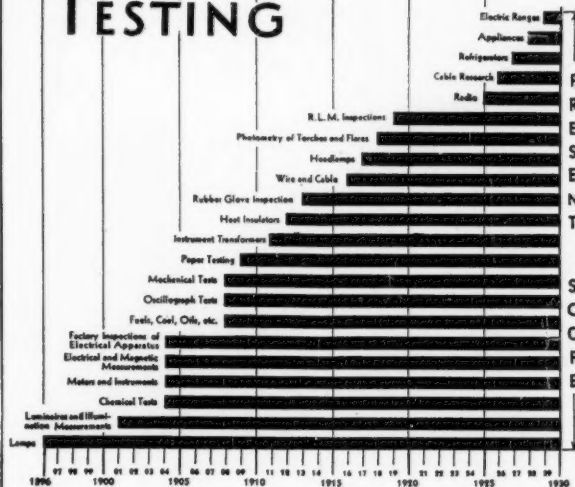
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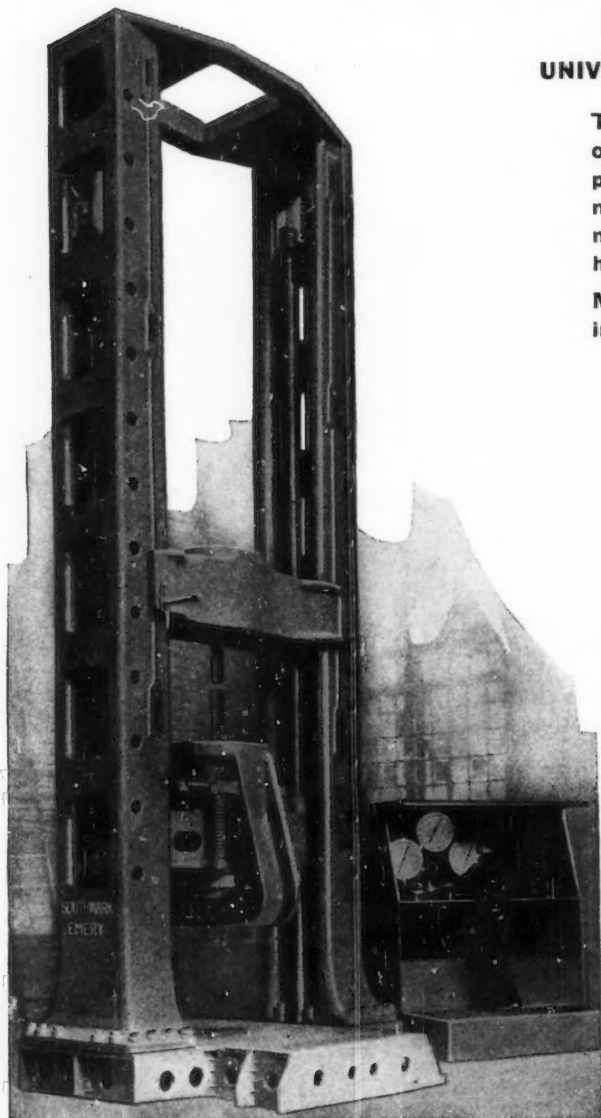
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UNIVERSAL HEAVY DUTY TESTING MACHINES

These photographs represent the two types of universal testing machines of one million pounds capacity and above. The all-hydraulic machines for routine and research tests of materials are equipped with the time-proven hydraulic weighing system of A. H. Emery.

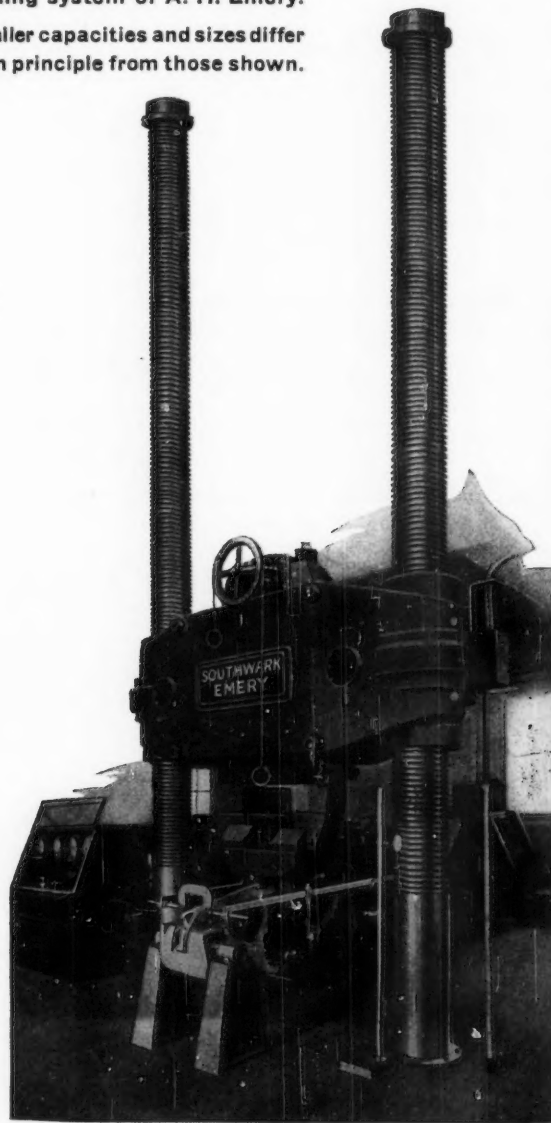
Machines of smaller capacities and sizes differ in form but not in principle from those shown.



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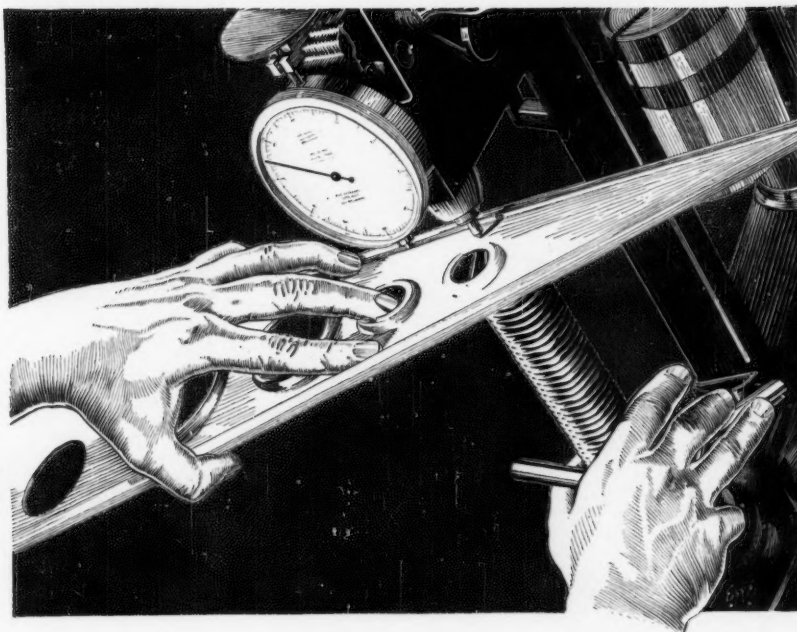
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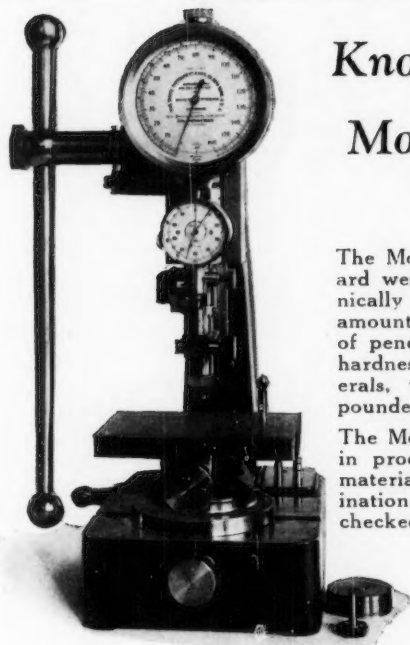
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They exert every effort to see that each plane is well and carefully built and have given us permission to publish this drawing showing one of the Rockwell Testing operations in their inspection department.



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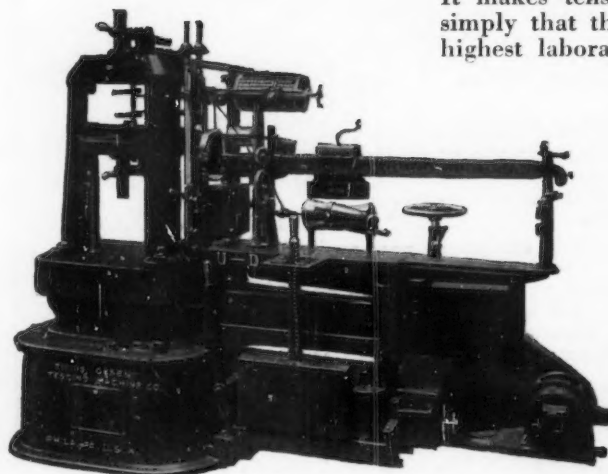
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